

We claim:

1. An isolated nucleic acid molecule comprising a polynucleotide chosen from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61 and SEQ ID NO:62.

2. An isolated polypeptide encoded by a polynucleotide chosen from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61 and SEQ ID NO:62.

3. An isolated nucleic acid molecule comprising a polynucleotide at least 95% identical to the isolated nucleic acid molecule of claim 1.

4. An isolated nucleic acid molecule at least ten bases in length that is hybridizable to the isolated nucleic acid molecule of claim 1 under stringent conditions.

5. An isolated nucleic acid molecule encoding the polypeptide of claim 2.

6. An isolated nucleic acid molecule encoding a fragment of the polypeptide of claim 2.

7. An isolated nucleic acid molecule encoding a polypeptide epitope of the polypeptide of claim 2.

8. The polypeptide of claim 2 wherein the polypeptide has biological activity.

9. An isolated nucleic acid encoding a species homologue of the polypeptide of claim 2.

10. The isolated nucleic acid molecule of claim 1, wherein the nucleotide sequence comprises sequential nucleotide deletions from either the C-terminus or the N-terminus.

11. A recombinant vector comprising the isolated nucleic acid molecule of claim 1.

12. A recombinant host cell comprising the isolated nucleic acid molecule of claim 1.

13. A method of making the recombinant host cell of claim 12.

14. The recombinant host cell of claim 12 comprising vector sequences.

15. The isolated polypeptide of claim 2, wherein the isolated polypeptide comprises sequential amino acid deletions from either the C-terminus or the N-terminus.

16. An isolated antibody that binds specifically to the isolated polypeptide of claim 2.

17. The isolated antibody of claim 16 wherein the antibody is a monoclonal antibody.

18. The isolated antibody of claim 16 wherein the antibody is a polyclonal antibody.

19. A recombinant host cell that expresses the isolated polypeptide of claim 2.

20. An isolated polypeptide produced by the steps of:

(a) culturing the recombinant host cell of claim 14 under conditions such that said polypeptide is expressed; and

(b) isolating the polypeptide.

21. A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 2 or the polynucleotide of claim 1.

22. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or absence of a mutation in the polynucleotide of claim 1; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

23. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 2 in a biological sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

24. A method for identifying a binding partner to the polypeptide of claim 2 comprising:

(a) contacting the polypeptide of claim 2 with a binding partner; and

(b) determining whether the binding partner effects an activity of the polypeptide.

25. The gene corresponding to the cDNA sequence of the isolated nuclei acid of claim 1.

26. A method of identifying an activity of an expressed polypeptide in a biological assay, wherein the method comprises:

(a) expressing the polypeptide of claim 2 in a cell;

(b) isolating the expressed polypeptide;

(c) testing the expressed polypeptide for an activity in a biological assay; and

(d) identifying the activity of the expressed polypeptide based on the test results.

27. A substantially pure isolated DNA molecule suitable for use as a probe for genes regulated in gastrointestinal inflammation, chosen from the group consisting of the DNA molecules identified in Table 1, having a 5' partial nucleotide sequence and length as described by their digital address, and having a characteristic regulation pattern in gastrointestinal inflammation.

28. A kit suitable for detecting the presence of the polypeptide of the claim 2 in a mammalian tissue sample comprising a first antibody which immunoreacts with a mammalian protein encoded by a gene corresponding to the polynucleotide of claim 1 or with

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a polypeptide of claim 2 in an amount sufficient for at least one assay, instructions for use and suitable packaging material.

29. A kit of claim 28 further comprising a second antibody that binds to the first antibody.

5 30. The kit of claim 29 wherein the second antibody is labeled.

31. The kit of claim 30 wherein the label comprises enzymes, radioisotopes, fluorescent compounds, colloidal metals, chemiluminescent compounds, phosphorescent compounds, or bioluminescent compounds.

10 32. A kit for suitable for detecting the presence of a gene regulated in gastrointestinal inflammation, comprising:

at least one polynucleotide of claims 1 or 4, or fragment thereof having at least 10 contiguous bases, in an amount sufficient for at least one assay;

label means;

instructions for use; and

15 suitable packaging material.

33. An isolated polypeptide comprising SEQ ID NO:129.